

IN THE CLAIMS:

Please cancel claims 22-27, and 40-42 without prejudice and amend claims 1-2, 7, 28-29, and 43 as follows:

1. (Currently Amended) A liquid crystal panel having a liquid crystal layer sandwiched between a pair of substrates, wherein:

said liquid crystal layer comprises a liquid crystal and a cross-linked resin;

said cross-linked resin includes an adhered cross-linked structural part, which is a cross-linked structural part adhered to an upper surface of one of the pair of substrates and a rising terminal part, which is a terminal part rising from said upper surface toward said liquid crystal;

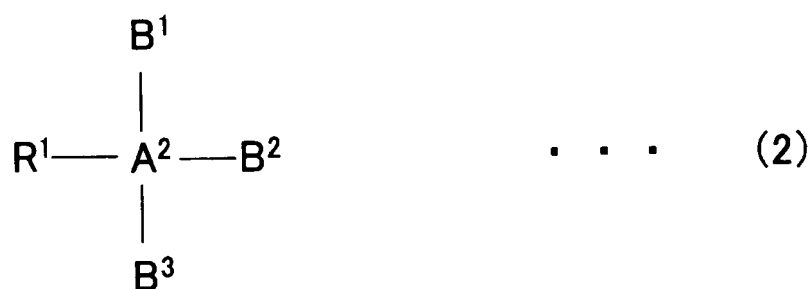
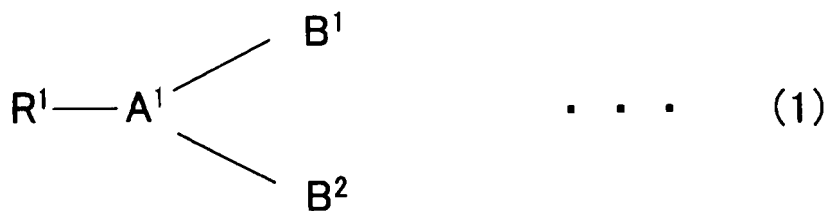
and

an outer surface of at least one of the pair of substrates is curved, and

said liquid crystal layer is formed by cross-linking, in the presence of a liquid crystal, a resin composition comprising one or more first compounds having a cross-linkable structural part, and a hydrophobic terminal part with a straight-chain section having three or more carbon atoms (hydrophobic, long-chain terminal part);

said cross-linkable structural part of the one or more first compounds comprises a polar-group structural part; and

at least one compound represented by formula (1) or (2) below is included as the one or more first compounds:



(in formulae (1) and (2), R<sup>1</sup> is a hydrophobic, long-chain terminal part; A<sup>1</sup> is a trivalent group comprising an aliphatic chain that may be branched, an aromatic ring that may have a substituting group, an alicyclic ring that may have a substituting group, or nitrogen; A<sup>2</sup> is a tetravalent group comprising an aliphatic chain that may be branched, an aromatic ring that may have a substituting group, or an alicyclic ring that may have a substituting group; B<sup>1</sup>, B<sup>2</sup> and B<sup>3</sup> are, each, a cross-linkable structural part; and R<sup>1</sup>, B<sup>1</sup>, B<sup>2</sup> and B<sup>3</sup> can be selected independently from each other in the formulae).

2. (Currently Amended) A liquid crystal panel having a liquid crystal layer sandwiched between a pair of substrates, wherein:

said liquid crystal layer comprises a liquid crystal and a cross-linked resin;

said cross-linked resin includes an adhered cross-linked structural part, which is a cross-linked structural part adhered to an upper surface of one of the pair of substrates and a rising terminal part, which is a terminal part rising from said upper surface toward said liquid crystal;

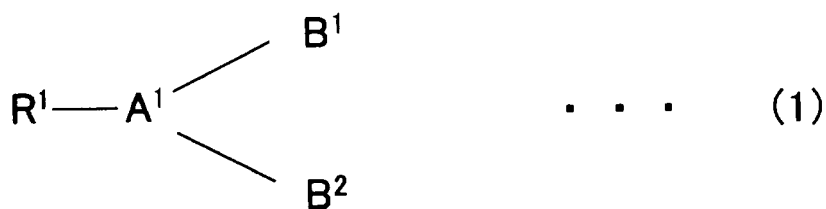
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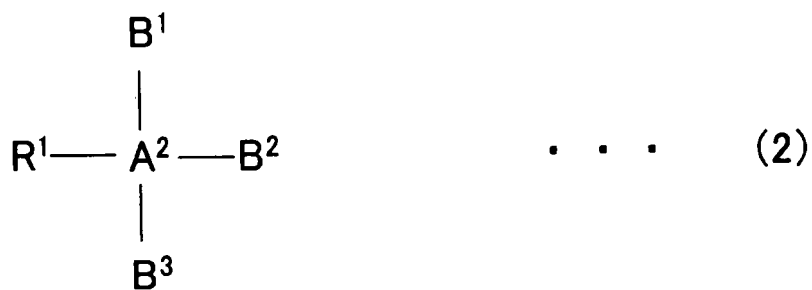
said upper surface is curved,

said liquid crystal layer is formed by cross-linking, in the presence of a liquid crystal, a resin composition comprising one or more first compounds having a cross-linkable structural part, and a hydrophobic terminal part with a straight-chain section having three or more carbon atoms (hydrophobic, long-chain terminal part);

said cross-linkable structural part of the one or more first compounds comprises a polar-group structural part; and

at least one compound represented by formula (1) or (2) below is included as the one or more first compounds:






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(in formulae (1) and (2),  $R^1$  is a hydrophobic, long-chain terminal part;  $A^1$  is a trivalent group comprising an aliphatic chain that may be branched, an aromatic ring that may have a substituting group, an alicyclic ring that may have a substituting group, or nitrogen;  $A^2$  is a tetravalent group comprising an aliphatic chain that may be branched, an aromatic ring that may have a substituting group, or an alicyclic ring that may have a substituting group;  $B^1$ ,  $B^2$  and  $B^3$  are, each, a cross-linkable structural part; and  $R^1$ ,  $B^1$ ,  $B^2$  and  $B^3$  can be selected independently from each other in the formulae).

3. (Previously Presented) A liquid crystal panel according to claim 1, wherein said upper surface is curved.

4. (Previously Presented) A liquid crystal panel according to claim 1, wherein said liquid crystal panel has a filter layer, and said upper surface is a surface of the filter layer or the surface of an electrode or electrodes installed in contact with the filter layer.

5. (Previously Presented) A liquid crystal panel according to claim 2, wherein said liquid crystal panel has a filter layer, and said upper surface is a surface of the filter layer or the surface of an electrode or electrodes installed in contact with the filter layer.

6. (Previously Presented) A liquid crystal according to claim 2, wherein said curved surface of said upper surface is composed of a plurality of concavities and convexities.

7. (Currently Amended) A liquid crystal panel having a liquid crystal layer sandwiched between a pair of substrates, wherein:

said liquid crystal layer comprises a liquid crystal and a cross-linked resin;

said cross-linked resin includes an adhered cross-linked structural part, which is a cross-linked structural part adhered to an upper surface of one of the pair of substrates and a rising terminal part, which is a terminal part rising from said upper surface toward said liquid crystal;

and

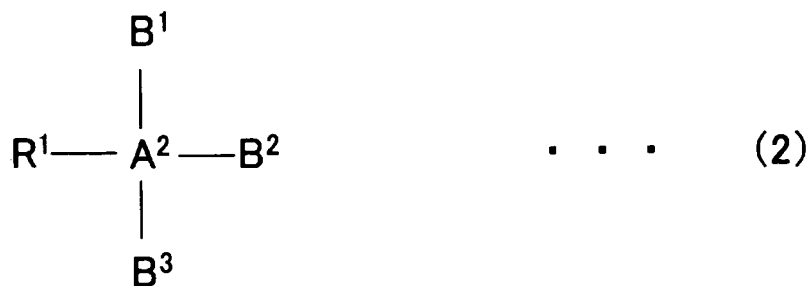
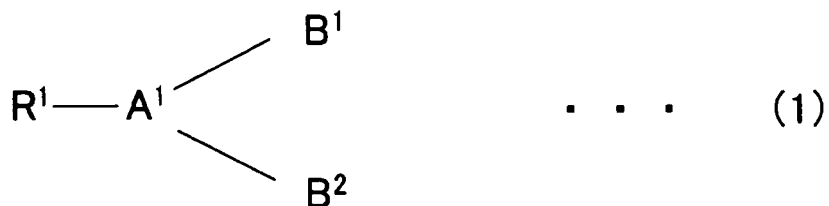
a thickness of one of the pair of substrates is not more than 1/2 of a thickness of the other of the pair of substrates,

said liquid crystal layer is formed by cross-linking, in the presence of a liquid crystal, a resin composition comprising one or more first compounds having a cross-linkable

structural part, and a hydrophobic terminal part with a straight-chain section having three or more carbon atoms (hydrophobic, long-chain terminal part);

said cross-linkable structural part of the one or more first compounds comprises a polar-group structural part; and

at least one compound represented by formula (1) or (2) below is included as the one or more first compounds:



(in formulae (1) and (2), R<sup>1</sup> is a hydrophobic, long-chain terminal part; A<sup>1</sup> is a trivalent group comprising an aliphatic chain that may be branched, an aromatic ring that may have a substituting group, an alicyclic ring that may have a substituting group, or nitrogen; A<sup>2</sup> is a tetravalent group comprising an aliphatic chain that may be branched, an aromatic ring that may have a substituting group, or an alicyclic ring that may have a substituting group; B<sup>1</sup>, B<sup>2</sup> and B<sup>3</sup>

are, each, a cross-linkable structural part; and  $R^1$ ,  $B^1$ ,  $B^2$  and  $B^3$  can be selected independently from each other in the formulae).

8. (Previously Presented) A liquid crystal panel according to claim 1, wherein the thickness of one of the pair of substrates is not more than  $1/2$  of the thickness of the other of said pair of substrates.

9. (Previously Presented) A liquid crystal panel according to claim 2, wherein the thickness of one of the pair of substrates is not more than  $1/2$  of the thickness of the other of said pair of substrates.

10. (Previously Presented) A liquid crystal panel according to claim 1, wherein the thickness of at least one of the pair of substrates is in the range of from 100 to 500  $\mu\text{m}$ .

11. (Previously Presented) A liquid crystal panel according to claim 2, wherein the thickness of at least one of the pair of substrates is in the range of from 100 to 500  $\mu\text{m}$ .

12. (Previously Presented) A liquid crystal panel according to claim 1, wherein the material of one of the pair of substrates is different from that of the other of the pair of substrates.

13. (Original) A liquid crystal panel according to claim 2, wherein the material of one of the pair of substrates is different from that of the other of the pair of substrates.

14. (Previously Presented) A liquid crystal panel according to claim 12, wherein said pair of substrates comprises a glass substrate and a plastic substrate.

15. (Previously Presented) A liquid crystal panel according to claim 13, wherein said pair of substrates comprises a glass substrate and a plastic substrate.

16. (Original) A liquid crystal panel according to claim 1, wherein said liquid crystal tilts while the tilting direction is regulated by uneven parts or slits of an electrode or electrodes when voltage is applied.

17. (Original) A liquid crystal panel according to claim 2, wherein said liquid crystal tilts while the tilting direction is regulated by uneven parts or slits of an electrode or electrodes when voltage is applied.



18. (Original) A liquid crystal panel according to claim 1, wherein said panel does not have an alignment control film.

19. (Original) A liquid crystal panel according to claim 2, wherein said panel does not have an alignment control film.

20. (Original) A liquid crystal panel according to claim 1, wherein said liquid crystal has a negative dielectric anisotropy.

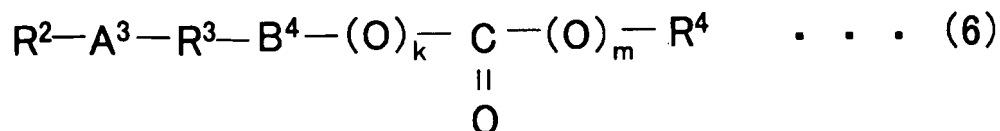
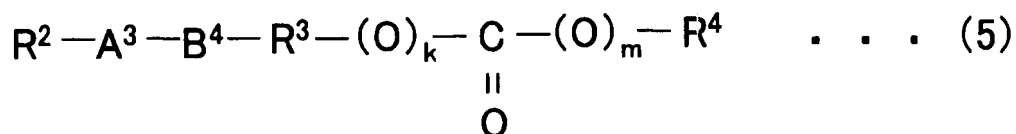
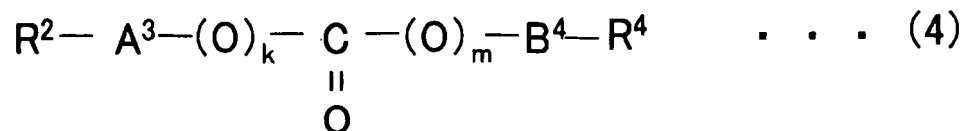
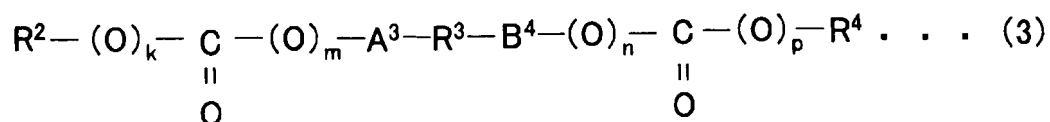
21. (Original) A liquid crystal panel according to claim 2, wherein said liquid crystal has a negative dielectric anisotropy.

22-27. (Cancelled)

28. (Currently Amended) A liquid crystal panel according to ~~claim~~  
26claim 1, wherein said one or more first compounds comprise a second compound with a cross-linkable structural part and substantially without a hydrophobic, long-chain terminal part.

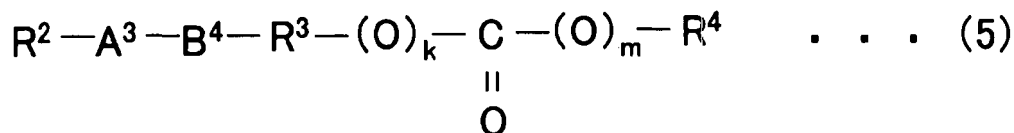
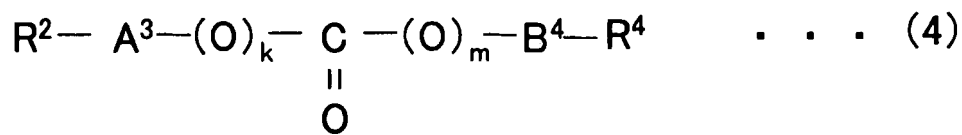
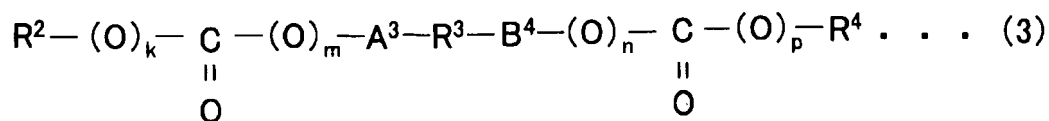
29. (Currently Amended) A liquid crystal panel according to ~~claim~~  
~~27~~claim 2, wherein said one or more first compounds comprise a second compound with a cross-  
linkable structural part and substantially without a hydrophobic, long-chain terminal part.

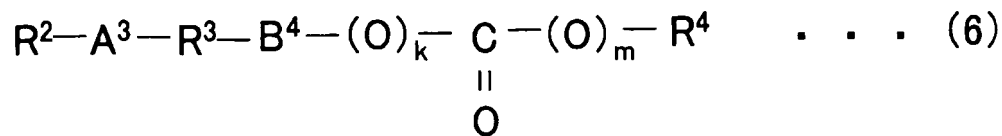
30. (Original) A liquid crystal panel according to claim 28, wherein at least  
one compound selected from the group consisting of the compounds represented by formulae (3)  
to (6) below is included as the second compound,



(in formulae (3) to (6), A<sup>3</sup> and B<sup>4</sup> are, independently from each other, a vinylene group or a propenylene group; R<sup>3</sup> is a divalent group; R<sup>2</sup> and R<sup>4</sup> are, independently from each other, hydrogen, an alkyl group that may be branched or an aromatic ring that may be substituted; at least one of R<sup>2</sup>, R<sup>3</sup> and R<sup>4</sup> is an aromatic ring; k, m, n and p are, independently from each other, 0 (zero) or 1; and R<sup>2</sup>-R<sup>4</sup>, A<sup>3</sup>, B<sup>4</sup>, k, m, n and p can be selected independently from each other in the formulae).

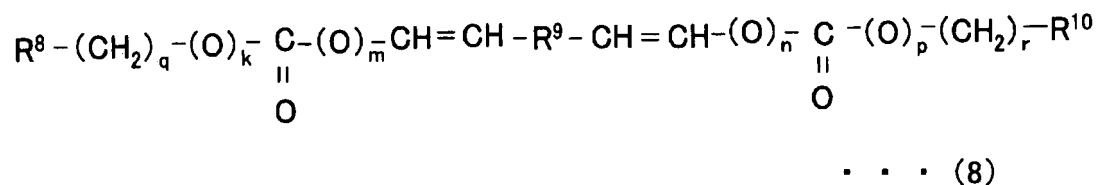
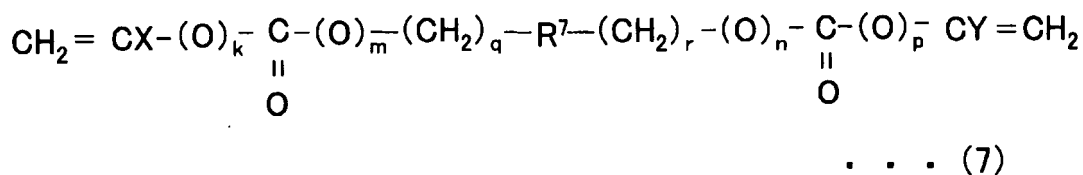
31. (Original) A liquid crystal panel according to claim 29, wherein at least one compound selected from the group consisting of the compounds represented by formulae (3) to (6) below is included as the second compound,

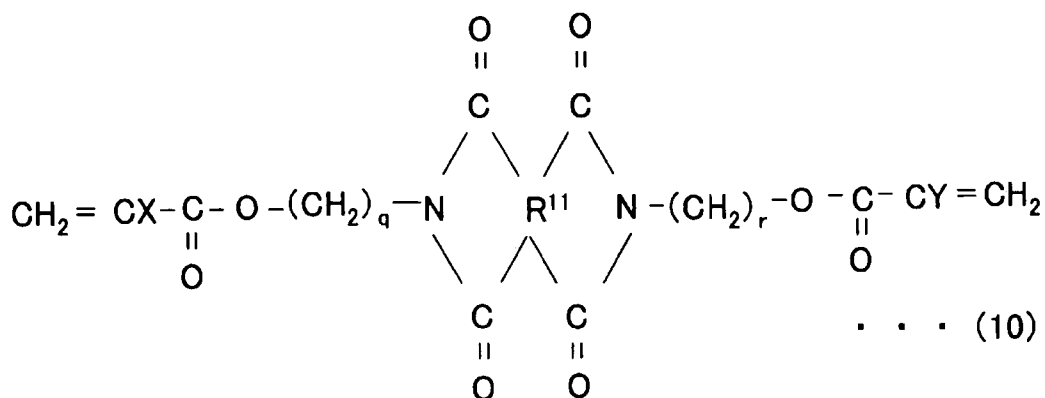
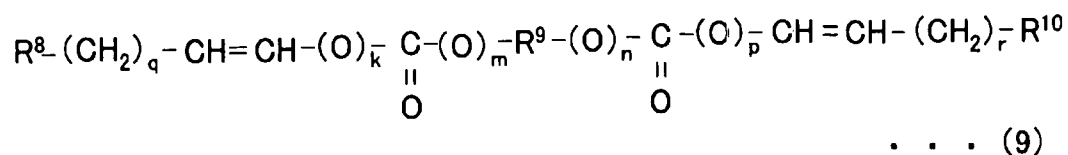




(in formulae (3) to (6),  $A^3$  and  $B^4$  are, independently from each other, a vinylene group or a propenylene group;  $R^3$  is a divalent group;  $R^2$  and  $R^4$  are, independently from each other, hydrogen, an alkyl group that may be branched or an aromatic ring that may be substituted; at least one of  $R^2$ ,  $R^3$  and  $R^4$  is an aromatic ring;  $k$ ,  $m$ ,  $n$  and  $p$  are, independently from each other, 0 (zero) or 1; and  $R^2$ - $R^4$ ,  $A^3$ ,  $B^4$ ,  $k$ ,  $m$ ,  $n$  and  $p$  can be selected independently from each other in the formulae).

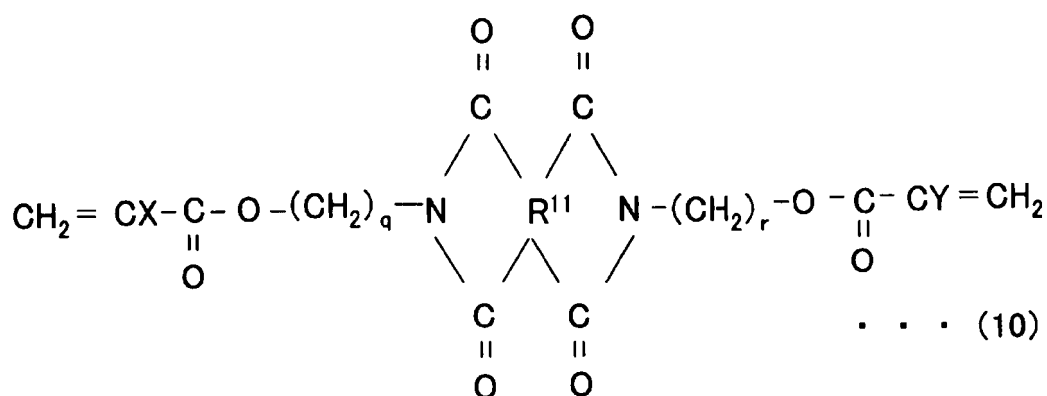
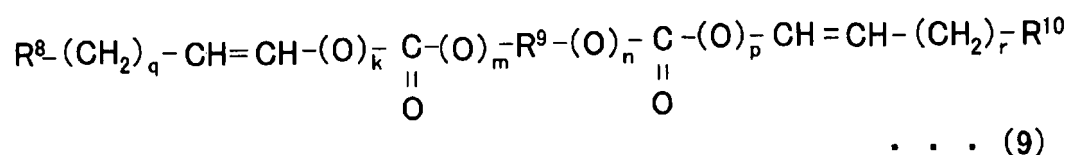
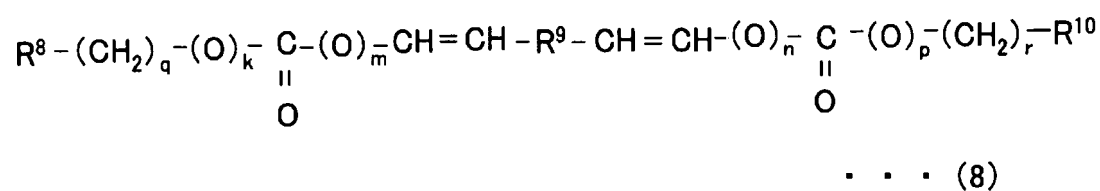
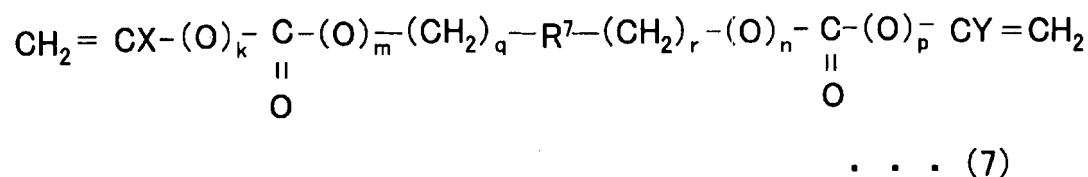
32. (Original) A liquid crystal panel according to claim 30, wherein at least one compound selected from the group consisting of the compounds represented by formulae (7) to (10) below is included as the second compound,





(in formulae (7) to (10), X and Y are, each independently, hydrogen or a methyl group;  $R^7$  is a divalent organic group having a five-member ring structure;  $R^8$  and  $R^{10}$  are hydrogen or an organic group;  $R^9$  is a divalent organic group; at least one of  $R^8$ ,  $R^9$  and  $R^{10}$  has a five-member ring structure;  $R^{11}$  is a tetravalent organic group constituting a tetracarboxylic acid residue; k, m, n and p are, independently from each other, 0 (zero) or 1; q and r are, independently from each other, an integer not less than 0 (zero) and not more than 6; and  $R^8$ - $R^{10}$ , k, m, n, p, q and r can be selected independently from each other in the formulae).

33. (Original) A liquid crystal panel according to claim 31, wherein at least one compound selected from the group consisting of the compounds represented by formulae (7) to (10) below is included as the second compound,



(in formulae (7) to (10), X and Y are, each independently, hydrogen or a methyl group;  $\text{R}^7$  is a divalent organic group having a five-member ring structure;  $\text{R}^8$  and  $\text{R}^{10}$  are hydrogen or an organic group;  $\text{R}^9$  is a divalent organic group; at least one of  $\text{R}^8$ ,  $\text{R}^9$  and  $\text{R}^{10}$  has a

five-member ring structure;  $R^{11}$  is a tetravalent organic group constituting a tetracarboxylic acid residue; k, m, n and p are, independently from each other, 0 (zero) or 1; q and r are, independently from each other, an integer not less than 0 (zero) and not more than 6; and  $R^8$ - $R^{10}$ , k, m, n, p, q and r can be selected independently from each other in the formulae).

34. (Previously Presented) A liquid crystal panel according to claim 7, wherein the thickness of at least one of the pair of substrates is in the range of from 100 to 500  $\mu\text{m}$ .

35. (Previously Presented) A liquid crystal panel according to claim 7, wherein the material of one of the pair of substrates is different from that of the other of the pair of substrates.

36. (Previously Presented) A liquid crystal panel according to claim 35, wherein said pair of substrates comprises a glass substrate and a plastic substrate.

37. (Original) A liquid crystal panel according to claim 7, wherein said liquid crystal tilts while the tilting direction is regulated by uneven parts or slits of an electrode or electrodes when voltage is applied.

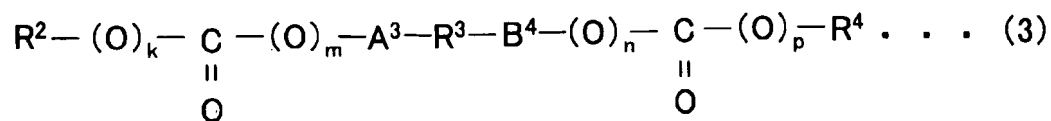
38. (Original) A liquid crystal panel according to claim 7, wherein said panel does not have an alignment control film.

39. (Original) A liquid crystal panel according to claim 7, wherein said liquid crystal has a negative dielectric anisotropy.

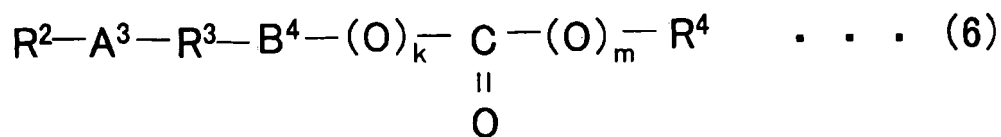
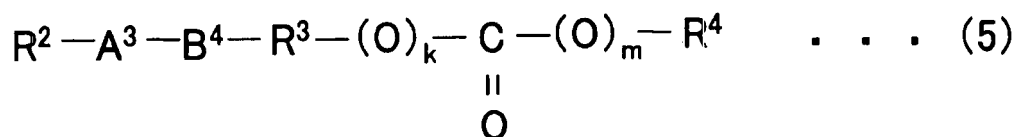
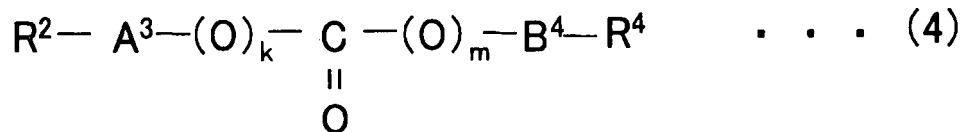
40-42. (Cancelled)

43. (Currently Amended) A liquid crystal panel according to ~~claim 42~~claim 7, wherein said one or more first compounds comprise a second compound with a cross-linkable structural part and substantially without a hydrophobic, long-chain terminal part.

44. (Original) A liquid crystal panel according to claim 43, wherein at least one compound selected from the group consisting of the compounds represented by formulae (3) to (6) below is included as the second compound,

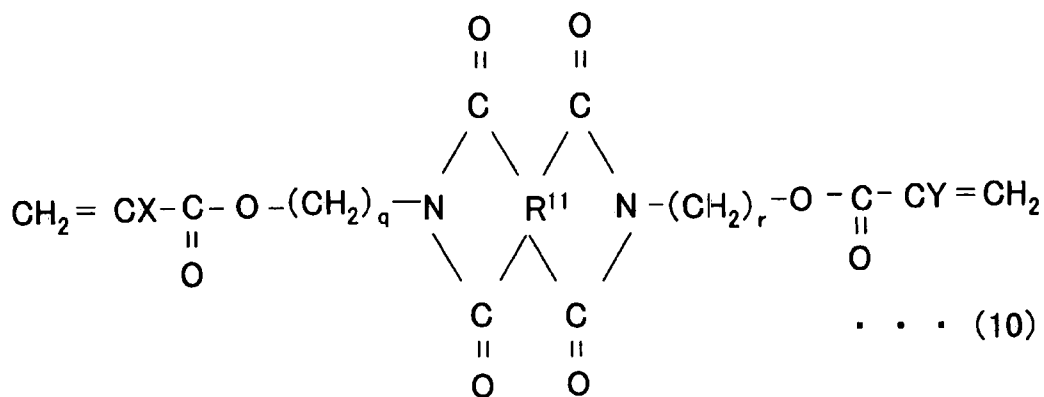
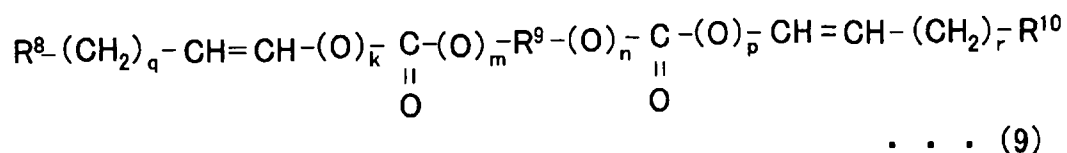
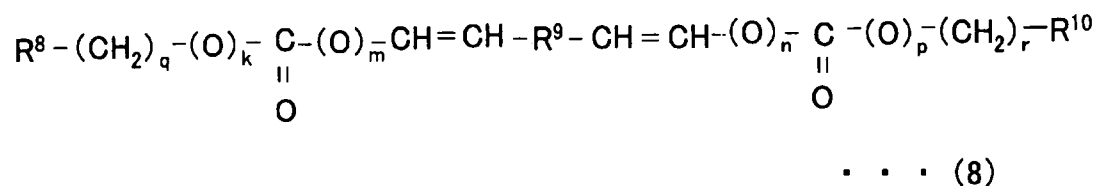
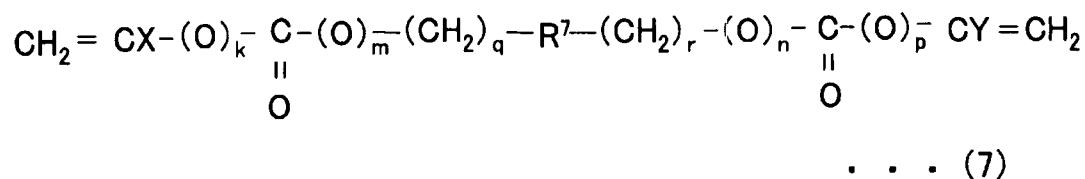






(in formulae (3) to (6),  $A^3$  and  $B^4$  are, independently from each other, a vinylene group or a propenylene group;  $R^3$  is a divalent group;  $R^2$  and  $R^4$  are, independently from each other, hydrogen, an alkyl group that may be branched or an aromatic ring that may be substituted; at least one of  $R^2$ ,  $R^3$  and  $R^4$  is an aromatic ring;  $k$ ,  $m$ ,  $n$  and  $p$  are, independently from each other, 0 (zero) or 1; and  $R^2$ - $R^4$ ,  $A^3$ ,  $B^4$ ,  $k$ ,  $m$ ,  $n$  and  $p$  can be selected independently from each other in the formulae).

45. (Original) A liquid crystal panel according to claim 44, wherein at least one compound selected from the group consisting of the compounds represented by formulae (7) to (10) below is included as the second compound,



(in formulae (7) to (10), X and Y are, each independently, hydrogen or a methyl group;  $\text{R}^7$  is a divalent organic group having a five-member ring structure;  $\text{R}^8$  and  $\text{R}^{10}$  are hydrogen or an organic group;  $\text{R}^9$  is a divalent organic group; at least one of  $\text{R}^8$ ,  $\text{R}^9$  and  $\text{R}^{10}$  has a five-member ring structure;  $\text{R}^{11}$  is a tetravalent organic group constituting a tetracarboxylic acid

residue; k, m, n and p are, independently from each other, 0 (zero) or 1; q and r are, independently from each other, an integer not less than 0 (zero) and not more than 6; and  $R^8-R^{10}$ , k, m, n, p, q and r can be selected independently from each other in the formulae).

46. (Cancelled)

47. (Previously Presented) A liquid crystal panel according to claim 1, wherein said adhered cross-linked structural part forms a thin film on said upper surface of said one of the pair of substrates.